

❖ The Maine Installer ❖

Dedicated to Professionalism in Underground Tank Installation

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Questions and Answers from Installer Seminar

During the Maine Oil Dealer's Association (MODA) Certified Tank Installer (CTI) training session conducted on March 4, 1998 at the Augusta Civic Center, there were several questions posed by installers that needed some further clarification. Below is a selected list of questions from installers and the Department's response:

Question: Are "In-Tank" probes required to be checked on double-walled tanks?

Answer: "In-Tank" probes are those that measure the level of liquids inside a tank. On a double walled tank with continuous electronic interstitial space monitoring, these probes do not have to be checked annually but the interstitial probe must be checked each year. If the tank owner is manually monitoring the interstitial space and piping / dispenser sumps (this is an option only on double walled systems installed prior to 9/6/91), then they must use some other method of leak detection such as an ATG or daily inventory and annual SIA. In-Tank probes that are used for leak detection (ATG or daily inv.) must be checked each year for proper operation. Log sheets that describe what is required for this annual check are available from the Department.

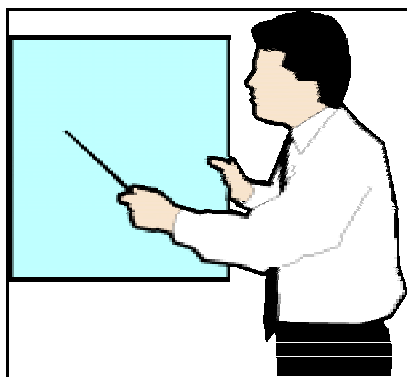
Question: CTIs are required to report evidence of a possible leak, what about manufacturer's representatives?

Answer: Manufacturer's representatives are not required to report evidence of a leak under the Department's regulations. They should report evidence of a possible leak to the tank owner. The tank owner is required to report evidence of a leak within 24 hours.

Q&A

Question: Why should an installer be held liable for phases of the tank installation for which he/she has no knowledge, i.e., electrical installations, etc.?

Answer: The Department holds the CTI who directs the installation of any underground oil storage system or portion of the system (piping upgrade, electronic monitoring system, etc.) responsible for the proper installation of that system. It is the CTI's responsibility to make sure all aspects of the installation are done properly. The Department suggests that the CTI get manufacturer's representatives and other licensed professionals (electricians, heating technicians, etc.) to certify the phase of the work that they performed was done correctly, in order to reduce the CTI's liability. Check with your equipment vendor



to see what sort of installation inspection services the equipment manufacturer or vendor provides.

Question: If testing a probe, is it required that
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Oil and Solid Fuel Board Changes AST Rules

During the last several years, the Oil and Solid Fuel Board has been diligently working to upgrade its rules governing the installation of oil heating equipment. During that period many independent technicians and organizations have participated in open discussions for the development of new rules, in an effort to touch upon some of the needed changes for the protection to life and property. The new rules were adopted and became effective on the 2nd of February 1998. These rules identify the most current National Fire Protection Association Standard (NFPA 31, 1997 Edition) as the applicable standard for the installation of oil burning equipment along with its associated auxiliary equipment (including oil supply tanks).

Within the context of rule making, the Maine Department of Environmental Protection approached the Oil and Solid Fuel Board, along with other oil related organizations, with respect to the current concerns regarding oil spills, oil supply tank eruptions and other oil-related occurrences which are contaminating our natural resources. The effect upon our environment, specifically the contamination of our natural resources, such as our water supply, and ground contamination, is taking place due to inappropriately installed oil supply tanks, careless handling of oil products, and inadvertent mishandling of such products. A major factor has been the oil supply tanks which are located outside. In some cases, outside and inside oil supply

AST's

tanks have shown signs of leaks, damage, excessive rust, eroded tank foundations and a carefree attitude of owners who do not realize the tremendous impact these problems have on our environment and the cost of taking care of such an occurrence (such as an oil leak), however large or small.

NFPA 31 has always required that the installation of an oil supply tank be securely supported by rigid noncombustible supports to prevent settling, sliding, or lifting. It also required that oil supply tanks be suitably protected from the weather and from physical damage incident to outside use. As we all know, the interpretation of these requirements caused diverse results. Confusion about the correct interpretation of these rules took hold. The Oil and Solid Fuel Board in its revised rules attempted to provide for uniformity of interpretations and has set forth the following requirements:

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the probe be pulled (inverted), and what are the requirements for destructive probes?

Answer: Liquid-sensing probes are used to monitor a tank's interstitial space and piping. Dispenser sumps for water and oil. These probes must be checked annually to make sure that they will alarm if placed in a liquid. For most systems, this is easily accomplished by placing the probe in a bucket of water. Always be sure to check with the manufacturer before testing any type of probe you are not familiar with in order to avoid damaging it. For destructive probes, which must be replaced after they contact oil or water, contact the manufacturer for instructions on testing. There are few destructive probes still in use and in most cases, if you check with the manufacturer you will find they recommend replacement with a newer model. If a probe manufacturer will no longer warrant a probe's performance and it cannot be adequately tested for proper operation then it should be replaced.

Question: Does water in a sump have to be reported to the Department as possible evidence of a leak, and if so, what is done with the water?

Answer: Water in a sump is considered evidence of a possible leak and must be reported to the Department within 24 hours. Call 1-800-482-0777 or 207-287-2651. If the water does not contain petroleum it can be disposed of in the sewer system with the permission of local officials. If contaminated, remove contamination with sorbent pads or call a hazardous waste handler.

Question: Is it necessary to report to the Department every time a facility in a tidal area gets water in its

Q&A

sumps, even though this happens twice a day?

Answer: Yes, it is necessary to report these alarms to the Department. Any location with this problem should consult the manufacturer of their sump to determine if the sump was properly installed and whether there are retrofits or upgrades available to keep water out. If water can enter and leave a sump twice daily then it is not liquid tight and needs repair. If water can drain out twice a day, so could oil.

Question: Do mechanical in-line leak detectors need to be tested to three (3) gallons per hour, or should I just make sure they trip when a leak occurs.

Answer: Mechanical in-line leak detectors need to be checked to manufacturer's specifications. This may include the three (3) gallons per hour check, or a trip check.

Question: During an annual tank maintenance inspection, what are the requirements when checking over-fill prevention devices?

Answer: Overfill prevention devices must be checked annually for proper operation and recalibrated if necessary i.e. check if they work and if they are set at the proper height. Electronic overfill prevention systems and float vent valves should be set at 90% full (by volume) and flapper

valves at 95% full (by volume). If a tank has no visible overfill protection and there is no T connection for testing a float vent valve, then the inspector should enter "unknown" on the annual Tank System Inspection Log. Also note in the Comments section that all tanks are required to have overfill protection by Dec. 22, 1998.

Question: What are the requirements for removing tanks at the end of their warranty period?

Answer: All motor fuel UST's and those used for marketing and distribution must be removed at the end

of their warranty period if they were installed after February 28, 1985. The law will be amended soon to include those tanks installed prior to February 28, 1985, and will allow a generous grace period for compliance. Currently, there is no requirement for heating oil tanks used for on-site consumption or waste oil tanks to be removed at the end of the warranty period. Future legislation may change this.

Question: What are the corrosion protection requirements for vent pipes?

Answer: Ancillary equipment (this means
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Disposal of Water in Piping Sumps

During the March 4th training program for Underground Storage Tank Installers, there were several questions on the proper procedures to follow when disposing of water from piping sumps. Of course, no answer can cover all the situations that you will encounter in the field. If you are in doubt as to how to dispose of water from a piping sump or the interstitial space of a tank please call the local DEP response office for guidance. You may not get the answer you want, but it's better than discussing the situation after the water has been improperly discharged.

Encountering water in the sumps associated with UST's, and what to do with that water is a complicated and potentially costly situation. Not all water has to be hauled off as hazardous waste, but sometimes political considerations, not necessarily physical characterization will require that it be treated as contaminated. Knowing the background of the site, the method and location of water supplies, and local regulations ahead of time may save some problems when a representative of the local water district shows up just about the time the sumps are being pumped onto the ground. Although there is no "one size fits all" answer, the following guidelines may be helpful.

If there is no product layer or sheen on the water, the presence of water is likely the result of rainwater run-off, or groundwater infiltrating the sump. In either case, the water can be disposed of overboard into the parking lot. Special attention should be taken to assure that the water is not pumped into an open waterbody or cause erosion. If the water is pumped into a storm drain, the municipal authorities should be contacted to assure that disposal in this manner meets with local regulations.

If there is a product layer or sheen, the product should be removed paying close attention to any possible ignition sources as there is likely an explosive condition either in the sump or at the opening, where the vapors are mixing with the outside air. An explosimeter should be used to determine if there is an explosive condition. If an explosive condition is present, a hazardous materials contractor should be contacted to vacuum out the sump. If the product can be removed without the use of a vac truck, the remaining water should be pumped into a container and disposed of as gasoline contaminated water. In a case where there is actually product in the sump then there has either (1) been a discharge to the surface which has drained into the sump or (2) components in the sump are leaking or have leaked in the past. Product in a sump must be reported to the Department as a discharge and is considered evidence of a possible leak.

Jon Woodard, Environmental Specialist, ME Dept. Enviro. Prot. Bureau of Remediation and Waste Management, Response Services Division; and Beth DeHaas, Environmental Specialist, ME Dept. Enviro. Prot. Bureau of Remediation and Waste Management, Oil and Hazardous Waste Regulation Division

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ventpipes) in contact with the soil must be constructed of fiberglass, cathodically protected steel or other corrosion resistant or non corrosive materials approved by the Commissioner.

Question: If the owner /operator of the tank tells the CTI that he /she has evidence of a possible leak, is the CTI required to report to DEP?

Answer: YES, within 24 hours.

Question: If an Automatic Tank Gauge (ATG) is used on a tank with a pressurized piping system, what check is performed on the piping leak detection?

Answer: The ATG system being used must also be able to perform monthly tests on the piping system for leaks of 0.1 gph or larger. The piping system must also be monitored continuously, either mechanically or electronically, for leaks of more than 3 gph. Follow the manufacturer's instructions for checking these piping leak detection systems for proper operation--electronic or mechanical. Properly installed suction systems are self-monitoring and do not need to be monitored.

Question: Is it legal, with a heating oil tank, to connect to existing piping that may be running from the tank under the building into the boiler room?

Answer: NO. The CTI cannot verify that the piping is installed correctly and should not "sign off" on the job as being performed correctly if all of the underground piping was not installed under their direct supervision.

Question: What about piping that runs underground or cement from a pump to a boiler?

Answer: This piping is considered part of the tank's piping system and if it runs underground it must be

Q&A

installed in accordance with DEP regulations. This means secondary containment with electronic monitoring as this is pressurized piping. Recent changes in the Oil and Solid Fuel Board regulations require sleeving of all piping that runs underground under a concrete slab or through a wall. Existing installations have been given two years to come into compliance. When installing new or replacement piping for a fuel oil tank, make sure that the piping in the boiler room either runs aboveground or is secondarily contained and monitored.

Question: Who is allowed to remove water from sumps?

Answer: If the water does not contain petroleum, any person may remove and /or dispose of water from sumps.

Question: How should we know if the water contains petroleum?

Answer: If you see a sheen or smell petroleum, the water is considered contaminated. If there are only trace amounts, they may be able to be removed with a sorbent pad. However, larger amounts will require proper

disposal.

Question: If a letter is faxed to MEDEP indicating possible evidence of a leak, what should be included?

Answer: Date, facility name, location and registration number, name of person reporting and their phone number, description of the problem and what has been done to correct it.

Question: What happens if a CTI discovers an illegal installation by a manufacturer's representative?

Answer: The Department can take enforcement action against anyone who incorrectly or illegally installs any part of an underground fuel storage facility whether it is a company or manufacturer's representative. Remember that if this work was done under the direction of a CTI then both may be held responsible. Manufacturer's reps are not allowed to install equipment for underground oil storage tanks except under the direction of a CTI. They may inspect, calibrate and repair only certain portions of an UST facility.

Question: Does the State require that probes be checked for water monitoring capabilities?

Answer: Probes used to monitor a tank's interstitial space, piping sumps or dispenser sumps must be checked annually to assure they will alarm in the presence of oil or water. They do not need to be able to distinguish between the two. Many probes will alarm in the presence of any liquid.

Question: Why are manufacturer's representatives not held to the same standard as CTI's?

Answer: Manufacturer's and owner's representatives are limited in what work they can perform. Chapter 69 states that they are allowed to inspect, test, calibrate and repair electronic leak detection systems, overfill and spill prevention equipment and inline leak detectors. Any installation or repair of other portions of underground oil storage facilities must be done under the direct supervision of a CTI.

Manufacturer's representatives are still subject to enforcement action for equipment that is improperly tested or repaired. Enforcement action will be taken by the Department rather than the Board of Underground Storage Tank Installers (BUSTI).

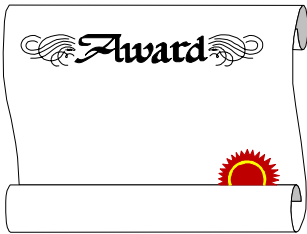
Beth DeHaas and Harold Evans, Environmental Specialists, Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, Division of Oil and Hazardous Waste Facility Regulation.

Some Credit Where Credit is Due

Last year, the DEP began a program to award gasoline marketing facilities which were totally in compliance with all its rules, including both the underground tank rules and the vapor recovery rules. Forty-four facilities were inspected but only five were found to be deserving of recognition. While awards have been given to the owner operators, we felt the installers who constructed the facilities also deserve recognition by their peers.

Arthur P. (Junior) Gooldrup, Jr. of Dead River Company, installed no less than three of the five facilities which received awards. Those three facilities, all Dead River Food Trends, are located in Norway, Mexico, and Augusta.

One of **Ron Leary's** sites, the DownEast Puffin Stop on Congress Street in Portland, also received an award, as did another Puffin Stop installed by **Rob Wilson**, this one on Main Street in South Portland.

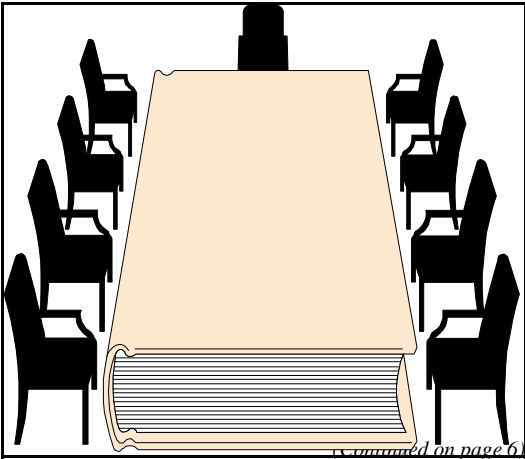


Board Bio; Allan Ball

Allan began his stint on the Board in the fall of 1995 when he replaced Alan Prysunka as the representative of Department of Environmental Protection (DEP) on the Board of Underground Storage Tank Installers (BUSTI). The DEP representative on the Board has the unfortunate honor of being the only member who is not limited in the number of terms he serves on the Board. So, assuming Allan wants to stay and the governor continues to approve, he'll be with us for a good, long time.

When he's not doing Board business, Allan is employed as the Director of the Bureau of Remediation and Waste Management for DEP. That means he's also DEP's representative to the Fund Insurance Review Board (FIRB) and the North East Waste Management Officials' Organization (NEWMOA).

Allan comes to us from Lynn, Massachusetts where he was most recently an officer in two real estate and construction management firms, Sluice Associates, Inc. and Chartwell Properties Corporation. In this capacity, he had first had experience as an underground tank owner who had to deal with a leak. Prior to that experience, he served as the first Executive Director for the startup of the Lynn Water and Sewer Commission. He's also managed the facilities and overseen construction for AT&T Information Systems and New



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1. Outside oil supply tanks of 350 gallons or less:

- ⇒ A horizontal oil supply tank shall be mounted on steel pipe legs, not exceeding twelve (12) inches in height with one and one quarter (1 1/4) inch threaded floor flanges at the base of the steel legs, supported by four (4) 4x8x6 inch solid cement blocks, or a one piece reinforced concrete pad not smaller than the tank dimensions. The four (4) blocks or the concrete pad shall rest on a firm subgrade consisting of a bed of compacted, well draining gravel (6" minimum), crushed stone (6" minimum), or some other subgrade approved by the Board.
 - ⇒ An upright or vertical tank shall be mounted on steel legs not exceeding twelve (12) inches in height, with one and one quarter (1 1/4) inch threaded floor flanges at the base of the steel leg, and supported by a minimum (3) inch thick reinforced concrete pad. The reinforced concrete pad's width, and length, shall not be smaller than the tank dimensions. The concrete pad shall be of one piece construction. The concrete pad shall rest on a bed of compacted, well draining gravel (6" minimum), crushed stone (6" minimum), or some other subgrade approved by the Board. There must be a minimum of four (4) inches of clearance under the tank bottom from any surface.
 - ⇒ Leg brackets welded on the tank shall not be considered a leg, and may not be used to rest on the side of the cement pad or blocks.
 - ⇒ When a reinforced cement pad is fabricated on-site, the legs of the supply tanks shall not be embedded as part of the slab.
 - ⇒ In all installations, the pipe flanges must be in direct contact with a reinforced cement pad or blocks.
2. Outside tanks and piping must be located such that they are not subject to falling snow or ice. To meet this requirement the tank and outdoor piping may be:

AST's

- ⇒ Located at the gable end of a building.
- ⇒ Fully covered by a shed roof; or
- ⇒ Located such that no portion of the tank or unsupported piping is within two (2) feet of the drip line of the eaves.
- ⇒ Buildings with flat roofs shall be considered to have eaves on all sides of the building.
- ⇒ These requirements may be met by installing a protective cover over the oil filter and any piping without structural support or not attached to the side of a building.

Due to the concerns of oil spills, the Oil and Solid Fuel Board has adopted a rule that all supply tanks shall be held to the same standards as a newly installed tank within five (5) years from the effective date of these rules.

Unfortunately, oil supply tanks are not the only foreseeable cause of spills and leaks. We must also consider the oil conveyance to the using units, specifically the oil supply lines. Presently, many oil supply lines have been imbedded under cement slabs for over 20 years in gravel, clay and other types of

soil with no protection from the effects of such material. Without protection, the elements eat away at the copper tubing utilized to convey the oil to the using units. It was always required by NFPA 31, the standard for the installation of oil-burning equipment, that all supply lines be substantially supported and protected against physical damage, and, where necessary, protected against corrosion. All buried piping had to be protected against corrosion. Again, different interpretations proliferated. To eliminate confusion, the Board took action as follows:

- ⇒ Whenever an oil supply or return line is installed under cement, sub-floors, or earth surface, it shall be continuous from the burner to the tank without splices.
- ⇒ In order to avoid undetected oil leaks under floors, all

oil supply and return lines installed under cement, sub-floors, or beneath any surface, shall be encased in a non-metallic, liquid tight conduits such as PVC, ENT or other approved material. The conduit shall be a minimum of one pipe size larger than the oil supply or return lines. The ends of the conduit shall penetrate the cement or earth surface at the burner and tank location a minimum of two (2) inches above grade. All copper tubing, spliced with an oil supply line, shall be made above the surface of the cement, subfloor or earth surface.

- ⇒ Whenever an oil supply or return line is used overhead or comes down from the ceiling to the floor, the entire line shall be protected by conduit, PVC, ENT, or other approved type material, and secured.

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New Rules Spell Out Underground Piping and Use of Removed Tanks to Oil Burner Tech's

New rules published by the Oil and Solid Fuel Board of the State of Maine don't really change anything when it comes to underground oil tanks, but they may make your job a little easier by removing some confusion and spelling out what can and cannot be done in two areas:

1. Underground piping associated with aboveground tanks
2. Using underground tanks aboveground after removal

The new rules of the Oil and Solid Fuel Board, part of the Department of Professional and Financial Regulation, became effective 2 February 1998. These rules reference DEP regulations regarding underground tanks and piping for the first time. If you have had trouble explaining the fact that only certified tank installers are allowed to install underground piping from large, aboveground oil tanks, or if you have had to tell your customer (and his/her oil dealer) that the oil tank you just pulled out of the ground cannot simply be placed next to the building and filled with oil then you should appreciate the fact these new rules tell oil burner technicians that they cannot do those things.

For Underground Piping the new rules state,

"9-10.11 If underground or under-slab piping is to a tank of over 660 gallons capacity or to tanks with an aggregate capacity of over 1320 gallons, then the installation of the underground piping must meet Department of Environmental Protection requirements. (See Appendix A)"

Appendix A goes on to explain how the piping must be installed by a certified underground tank installer, the noncorrosive materials required, and the leak detection requirements.

For Removed Tanks the new rules state,

"9-17 USED UNDERGROUND OIL TANKS.

Abandoned underground oil storage tanks are prohibited from use for above ground storage of oil, except where approved by the Maine State Fire Marshal or where a Maine professional registered engineer or other person meeting the requirements of statutes, rules and regulations governing professional engineers practicing in Maine, certifies that the tank meets all applicable specifications and requirements of UL 142 and NFPA # 30."

The companion article in this newsletter provides directions as to how to obtain copies of these rules.

Peter Moulton, Environmental Engineer, Maine Dept. Environ. Protection, Bureau of Remediation and Waste Management, Pollution Prevention Unit.

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- ⇒ No oil supply line may be concealed in a wall, ceiling, or partition without providing access to the oil supply or return line. Removable panels may be used to meet this requirement.
- ⇒ Oil supply lines which penetrate a foundation wall, shall be encased in a nonmetallic, liquid tight conduit such as PVC, ENT, or other approved material. The sleeve shall be sealed at the wall to prevent the entry of water, insects, or rodents.
- ⇒ Accessory equipment, such as an oil filter, connected to copper piping smaller than three-quarter (3/4) inch and not located within the vicinity of the oil supply or burner, shall be supported by a wall or floor mounted bracket or other means providing sufficient support for stability and servicing this type of accessory equipment.
- ⇒ Fittings in the supply and return oil lines now must be of the flare type only.
- ⇒ All connections of oil supply and return oil lines located outside shall be made with flare frost fittings.
- ⇒ All oil lines or oil devices which are disconnected from an oil supply tank, burner, or unit shall not be left open. Any oil line or device which is left disconnected or discontinued for any period of time shall be sealed or closed with a plug, cap, or other approved fitting.

Finally, existing buried, grouted, unprotected supply lines must be taken out of service within two (2) years from the effective date of these rules and replaced with new protected lines in accordance with present rules.

The present requirements certainly create change within the oil industry, and also for consumers who must bear some of the brunt of these new rules. No one likes changes. Yes they are a burden, but let us not forget that during the storm of 1998 the majority of us lost power.

GOLLY GEE!!! no television to pass the time away, some got colder than others, and some who depended on their wells found out what no water meant. Without the power to drive their well pumps, they had no water.

No showers! No water to cook! No water to drink! In the summer, no water to drink in 80 to 90 degree heat?

All of us are aware of such problems, but we don't usually react to the situation until it directly effects us. Assume we were directly affected by an oil spill which contaminated our well water or possibly a local town's water supply. What discomforts could be derived from such occurrences? Some folks already know, by having such an occurrence directly affect them caused by their own - or a neighbors - oil tank spill.

The consumption of water is a necessary life sustaining act. Contaminated water! What must we do to prevent such an occasion? How do we react to that possibility?

The Oil and Solid Fuel Board, in making such an attempt, has provided standards and guidelines for the consumer and licensed technicians to address such concerns.

Oil Burner Technicians should have already received a copy of the new rules. If you don't have a copy and want one, call Cheryl Hersom or Mary Ann Campbell at the Oil and Solid Fuel Board. The phone number is 624-8608. The rules are also available on the Internet, either from the Department of

Business and Professional Regulation (<http://www.state.me.us/bpr/led/ledhome2.htm>) or the Secretary of State (<http://www.state.me.us/sos/sos.htm>).

Henry Boucher, Senior Oil Burner Inspector, Maine Department of Business and Professional Regulation, Division of Licensing and Registration.

Board Bio

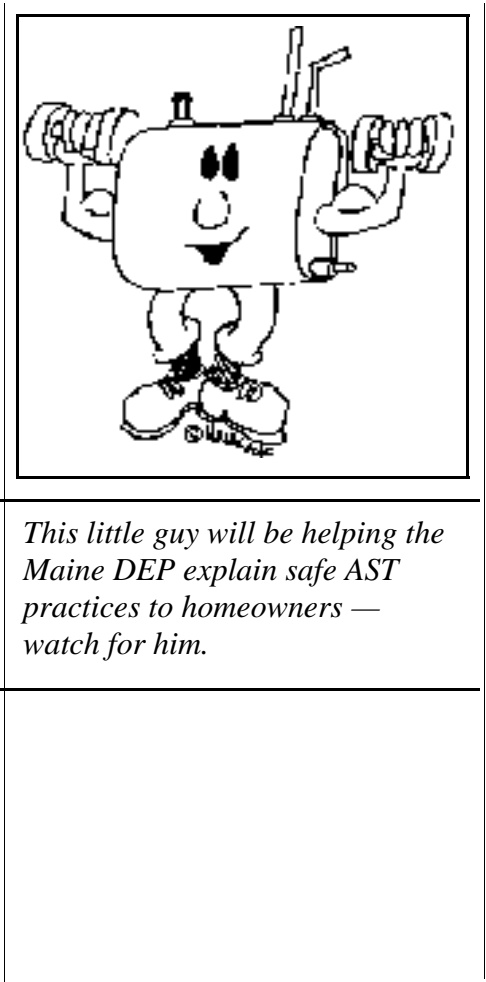
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England Telephone for the New England states and New York.

He holds a Bachelor's Degree in Mechanical and Structural Engineering from Northeastern University along with an Associate Degree in Architectural Engineering from the Wentworth Institute of Technology. He's had a variety of other specialized course work from the Computer Programming Institute, the University of Alabama, and the University of Wisconsin. He has licenses or memberships from the American Society of Civil Engineers (ASCE), the Society of American Value Engineers (SAVE), Massachusetts Building Congress, a Massachusetts Class 1 Building Contractors' License, a Massachusetts Real Estate License, and a Massachusetts Construction Supervisor's License.

Allan lives in Freeport with his wife Marie. They have five (5) children and 14 grandchildren, all scattered to the winds. Allan's past civic experience has included volunteer efforts with a variety of organizations, including a varsity sports club at the English High School in the Lynn, MA area as well as the Pop Warner Football League.

AST's



Cathodic Protection
Log Sheet Update

During training sessions with installers last Fall the suggestion was made that the Department include a Pass / Fail column in the log sheet distributed to tank owners each spring. Due to staff changeover that correction was not made on the log sheets sent out to tank owners this spring. The log sheet has since been updated and a corrected copy is attached to this newsletter. Please feel free to use this updated log sheet to record CP test results for 1998. Completed log sheets may be submitted to the Department.

Beth DeHaas, Env. Spec., ME DEP

Reader Response; UL Listed Composite and Jacketed Tanks are not Fiberglass Coated Steel Tanks

Editor's Note: This article is published by request of the author in response to an article published in the last issue of "The Maine Installer," Fiberglass Coated Steel Still Not Proven in Maine.

After reading Diana McLaughlin's article "Fiberglass Coated Steel Tanks Still Not Proven in Maine," I called W. David McCaskill, Chairman UST Technical Review Committee, to determine what the intent of the article was. He explained that the tank in question was an old UL 58 listed single walled FRP clad tank. The tank was not a UL listed corrosion protected tank. The department wanted to let the public and installers know that these older, non-cathodically protected tanks do not meet the Maine UST regulations.

Maine incorporated acceptance of UL listing for steel tanks with corrosion protection (UL1746) in amendments to its Chapter 69 that were adopted September 6, 1991. Tanks installed after September 6, 1991 and listed under the UL1746 standard do meet the requirements of Maine regulations.

Diana McLaughlin's evaluation of the failure of this non-UL1746 listed tank demonstrates the importance of the UL listing, testing and inspection program to insure a functioning corrosion protected tank. The delamination of the tank in the report was probably not only a result of improper surface preparation, but probably also resulted from the use of untested resin and an improper

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Dispenser Sumps for Flexible Piping; A Clarification

During the past several months, the Board received two complaints regarding installers who used Environ flexible piping on suction systems and did not include dispenser sumps in the design. The Board took enforcement action in both circumstances, citing the requirement in the Department of Environmental Protection's chapter 691 rules that piping must be installed according to the manufacturer's specifications. As a result, Environ was asked to clarify their position. Christopher Ursillo, Engineering Coordinator for Environ responded with the following comments to Adams & Fogg Equipment Company on February 20, 1998:

"Dave Wallingford wrote me with a request to clarify the official interpretation of Environ's minimum requirements that all installers can use pertaining to the use of dispenser and tank sumps. Though suction systems by their very nature possess some inherent protection from incidental discharge of product, Environ requires that all applications make use of dispenser sumps and tank sumps to contain the metallic fittings used in the underground piping system. These chambers permit inspection and maintenance of the fittings while isolating them from the ground environment.

"The Environ warranty reflects this position, as the limited warranty shall be null and void if some manufacturer's tank and dispenser containers have not been contemporaneously installed with the piping system.

"Environ will be introducing Environ Coax Fittings with are nonmetallic double walled fittings for use with the GeoFlex System. These fittings do not require the

use of dispenser sumps in order to satisfy the Environ's installations requirements, though tank sumps

The Environ limited warranty shall be null and void if some manufacturer's tank and dispenser containers have not been contemporaneously installed with the piping system.

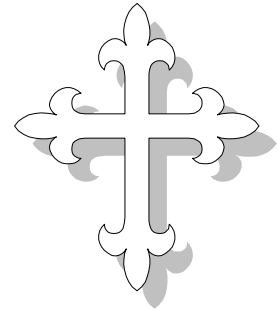
will still need to be used. The warranty will be updated to reflect this position. We will keep you informed as to their availability. If you require any additional information clarification regarding the Environ GeoFlex System for either pressure or suction applications, please do not hesitate to call either Dave Wallingford or me."

Obituary; Roger W. Lytle

Roger W. Lytle, 58, of 69 Beech Road in Elliot, died Tuesday, December 23, 1997, at York Hospital.

He worked for more than 20 years, many of them as a certified tank installer, at Greenwood Construction, Inc. He also worked for more than 10 years at Harold G. Cobb Construction, and for many years at the Fred Lytle and Sons Paving Co.

Born August 21, 1939, in York, he
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New Construction Standard For Steel Tanks Beware The Maximum Burial Depth!

A recent change in UL 58, the construction standard for steel underground storage tanks, which went into effect on September 30, 1997, is worth noting. The thickness of steel plate used in building a tank is one of the factors that determines the pressure required to collapse the tank from external forces. In the old version of UL 58, the thickness of the steel plate to be used in constructing different sizes of tanks was specified as part of the standard. In the latest edition of UL 58, the thickness of the steel plate is left largely to the discretion of the tank manufacturer, with the caveat that each tank must bear a label indicating the maximum burial depth for that specific tank. The tank must also be able to withstand at least a 5-foot burial depth.

In other words, it is now possible for a tank manufacturer to produce an 8,000 gallon tank with a specified maximum burial depth of 5 feet, and an 8,000 gallon tank with a specified maximum burial depth of 8 feet. Because of the physics of the situation, the tank with the deeper burial depth will need to be constructed of thicker steel. Because steel is sold by the ton, the tank with a maximum burial depth of 8 feet will weigh more and cost more than the tank with a maximum burial depth of 5 feet. Thus, installers and regulators will need to verify that the planned burial depth for a steel tank is less than the maximum permissible burial depth indicated on the tank label.

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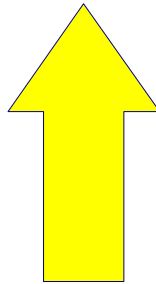
Reader Response

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proportion of fiberglass content to resin. This mixture must be closely controlled to maximize the strength of the fiberglass and the non-permeability of the polyester isothalic resin. The mixture used on the tank in the report had not passed UL listing.

The customer and installer should be sure the product they are buying is Underwriters Laboratories listed to UL 1746, Corrosion Protection and 360 secondarily contained. This will ensure the highest performance of the product.

Peter LaHaise, President, Tanx Incorporated, Claremont, NH.



Obituary (cont.)

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was the son of Maybelle (Drew) Lytle of York and the late Fred E. Lytle Sr. He attended York schools.

He was an avid sportsman and enjoyed hunting, fishing and stock car racing. He traveled all over Maine for many years to play horseshoes.

He was the husband of Katherine (Junkins) Lytle for 38 years.

Besides his wife and mother, survivors include a daughter and son-in-law, Teresa and David Babkirk of Eliot seven brothers, Fred Lytle Jr., Charles Lytle and Bradley Lytle, all of York, Philip Lytle Sr. of Eliot, Carl Lytle of New Durham, NH., Robert Lytle of Germany, and Wayne Lytle of Springvale, Maine; two sisters, Beverly Mack and Donna Cole, both of Sanford, Maine; two grandchildren; and many nieces and nephews.

The Maine Installer

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